

## Narrative on Background Values

Maximum detected concentrations for 25 metals were determined for each metal across all Animas River sampling locations in the Durango area collected prior to the arrival of the Gold King mine release plume. Surface water samples were collected at five sites between October 2012 and immediately prior to the Gold King mine release on August 6, 2015 for a total of 11 samples including multiple water samples collected at the Baker Street Bridge (4 samples) and the 32<sup>nd</sup> Street Bridge (6 samples) (Table 1). Sediment samples were collected at six sites between October 2012 and September 2014 (Table 2). Four sediment samples were collected at Baker's Bridge on different dates beginning in October 2012 and one each were collected in the Animas River at Lightner Creek, Purple Cliffs, James Ranch and the 32<sup>nd</sup> St Bridge on September 25, 2014.

EPA Risk Assessment guidance recommends that exposure point concentration be calculated using the 95 percent upper confidence limit (95UCL) of the arithmetic mean because of the uncertainty associated with estimating the true average concentration at a site (EPA OSWER 9285.6-10, 2002). In cases where the 95UCL cannot be calculated it is acceptable to use the maximum detected concentration at a site. Because the limited historical data precluded the calculation of 95UCLs, the maximum detected concentration for each metal was used to represent background exposure point concentrations.

Table 1. Animas River surface water sample location, number, and dates

Sample location	Number of Samples	Dates Sample
32 <sup>nd</sup> Street Bridge	4	9/15/2014, 8/5/2015, and 2 samples on 8/6/2015.
Baker's Bridge	5	10/3/12, 7/29/2014, 9/25/14, 8/5/15, 8/6/15
At Lightner Creek	1	9/24/14
Purple Cliffs	1	9/24/14
James Ranch	1	9/24/14

Table 2. Animas River sediment sample locations, number, and dates

Sample Location	Number of Samples	Dates Sampled
32 <sup>nd</sup> Street Bridge	4	9/25
Baker's Bridge	1	10/3/12, 5/15/13, 4/15/14, 9/25/14
At Lightner Creek	1	9/25
Purple Cliffs	1	9/25
James Ranch	1	9/25